Fig.1

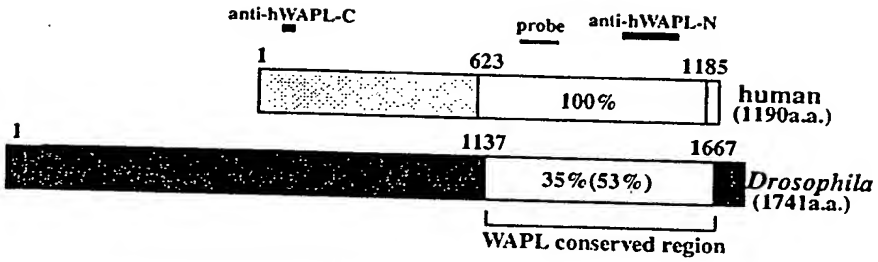
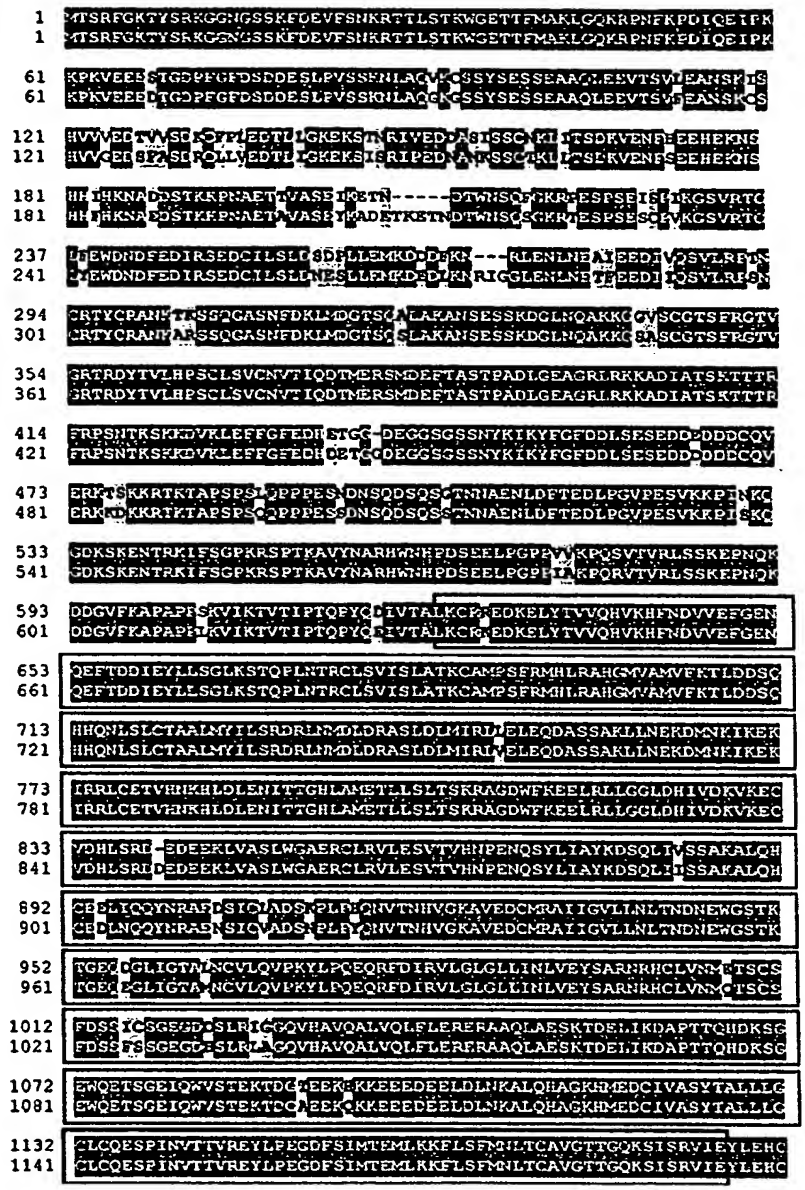

anti-hWAPL-C
probe
anti-hWAPL-N
1
623
1185
100%
human
(1190a.a.)
1
1137
1667
35%(53%)
Drosophila
(1741a.a.)
WAPL conserved region

Fig.2

```
hWAPL: 623  LKCRREDKELYTVVQHVKHFNDVVEFGENQEFTDDIEYLLSGLKSTQPLNTRCLSVISLA 682
            ++  R+ K+ Y VV++VK  + + E GE QE  DD+EY+L  L+   P  TRCLS + LA
dWAPL: 1137 IRVDRKTKDYYPVVRNVKTAHQIQEIGEYQEMDDDVEYILDALQPHNPPATRCLSALQLA 1196

hWAPL: 683  TKCAMPSFRMHLRAHGMVAMVFKTLDDSQHHQNLSLCTAALMYILSRDRLNMDLDRASLD 742
             KC MP+FRMH+RAHG+V   FK L D+    +L LCT+A+MYILS++ LNMDLDR SL+
dWAPL: 1197 AKCMMPAFRMHVRAHGVVTKFFKALSDANKDLSLGLCTSAIMYILSQEGLNMDLDRDSLE 1256

hWAPL: 743  LMIRLLELEQDASSAKL--LNEKDMNKIKEKIRRLCETV----HNKHLDLENITTGHLAM 796
            LMI LLE +    S +    +    ++ K+K+R LCE +       HL+++++T G LAM
dWAPL: 1257 LMINLLEADGVGGSTETGHSDRAGYDRNKQKVRELCEEIKAQGKGTHLNVDSLTVGTLAM 1316

hWAPL: 797  ETLLSLTSKRAGDWFKEELRLLGGLDHIVDKVKE-CVDHLSRDED---EEKLVASLWGAE 852
            ETLLSLTSKRAG+WFKE+LR LGGL+HI+  + + C   ++ D +   +  L+ ++
dWAPL: 1317 ETLLSLTSKRAGEWFKEDLRKLGGLEHIIKTISDFCRPVIACDTEIDWQPTLLDNMQTVA 1376

hWAPL: 853  RCLRVLESVTVHNPENQSYLIAYKDSQLIVSSAKALQHCEELIQQYNRAEDSICLADSKP 912
            RCLRVLE+VT HN  NQ Y++     + +          E L Q Y      I L  S
dWAPL: 1377 RCLRVLENVTQHNETNQRYMLTSGQGKAV----------ETLCQLYRLCSRQIMLHPSD- 1425

hWAPL: 913  LPHQNVTNHVGKAVEDCMRAIIGVLLNLTND-NE----WGSTKTGEQDGLIGTALNCVLQ 967
               +   H G A+ + +  ++ VL+NLT+  NE     G+   G++  ++ T+   +L
dWAPL: 1426 -GGGSNKEHPGVAMRELLVPVLKVLINLTHTFNEAQPSLGAELLGQRGDVVETSFRLLLL 1484

hWAPL: 968  VPKYLPQEQRFDIRVLGLGLLINLVEYSARNRHCLVNMETSCSFDSSICSGEGDDSLRIG 1027
              Y+P +  F++ +L L LLINL  ++  NR  L+       + +        D+
dWAPL: 1485 SANYIPDQCVFELSILVLTLLINLCMHTVPNRAALMQAAAPAEYVA--------DNPPAQ 1536

hWAPL: 1028 GQVHAVQALVQLFLERERAAQLAESKTDELIKDAPTTQHDKSGEWQETSGEIQWVSTEKT 1087
            G V A+QAL++ F + E  A+L E  TD  ++      ++K  + QE   E
dWAPL: 1537 GSVSALQALLEYFYKCEELARLVEKNTDAFLE-----SNEKGKKKQEEVEE--------- 1582

hWAPL: 1088 DGTEEKHKKEEEDEELDLNKALQHAGKHMEDCIVASYTALLLGCLCQESPINVTTVREYL 1147
                          +N  +Q AG HME  +  SY A+L+G L  ++ +  + VR  L
dWAPL: 1583 ----------------TVNNLVQRAGHHMEHTLKGSYAAILVGNLIADNELYESVVRRQL 1626

hWAPL: 1148 PEGDFSIMTEMLKKFLSFMNLTC---AVGTTGQKSISRVIE 1185
               F  +  +L+K+ +FMNLT    A      KS  R+I+
dWAPL: 1627 RGNSFKEIIGVLEKYHTFMNLTSSLEAAFVAHMKSTKRIID 1667

>pir:T13610 [T13610] parallel sister chromatids protein - fruit fly
          Length = 1741
 Identities = 204/581 (35%), Positives = 309/581 (53%), Gaps = 68/581 (11%)
```

Fig.3



The upper and the lower rows are the sequences of the human and the mouse WAPLs, respectively. White and gray parts indicate the same and similar amino acids, respectively.

The part in the frame is a region having similarity to the Drosophila WAPL.

Fig.4

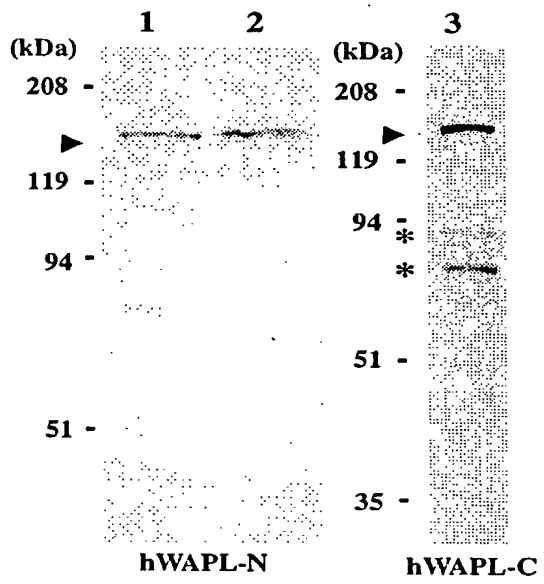


Fig.5

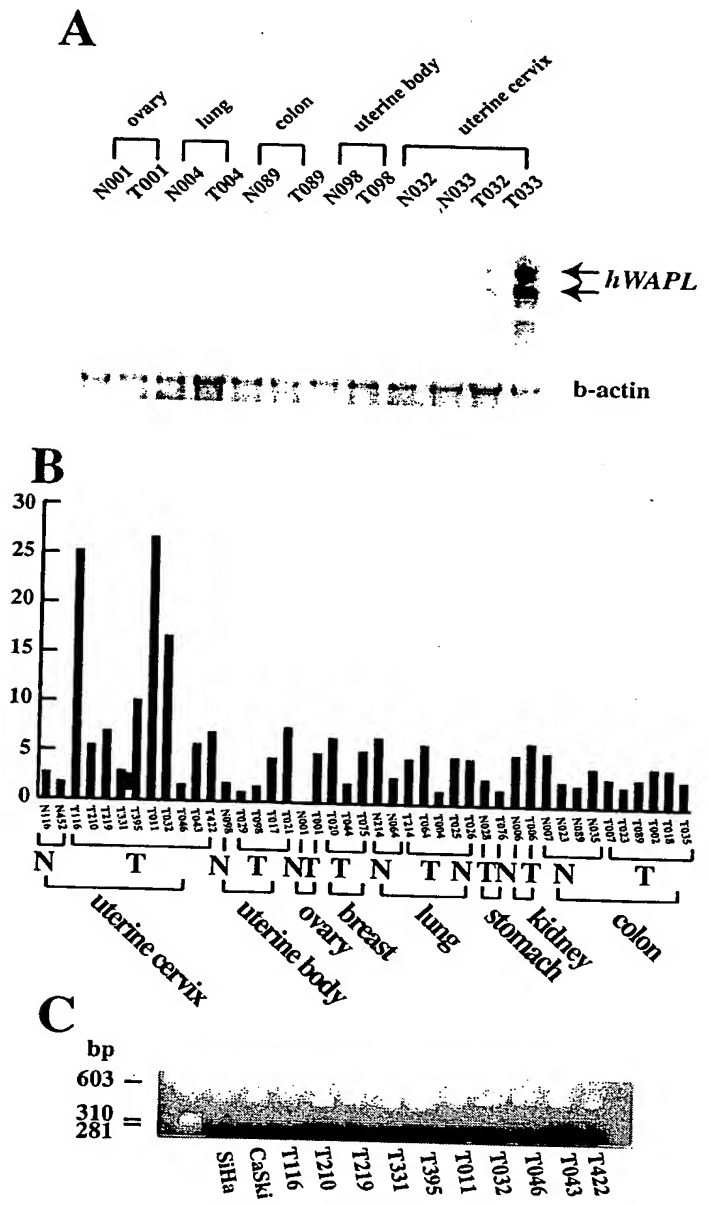

A
ovary
lung
colon
uterine body
uterine cervix
N001
T001
N004
T004
N089
T089
N098
T098
N032
N033
T032
T033
hWAPL
b-actin
B
30
25
20
15
10
5
0
N
T
uterine cervix
uterine body
ovary
breast
lung
stomach
kidney
colon
C
bp
603
310
281
SiHa
CaSki
T116
T210
T219
T331
T395
T011
T032
T046
T043
T422

Fig.6

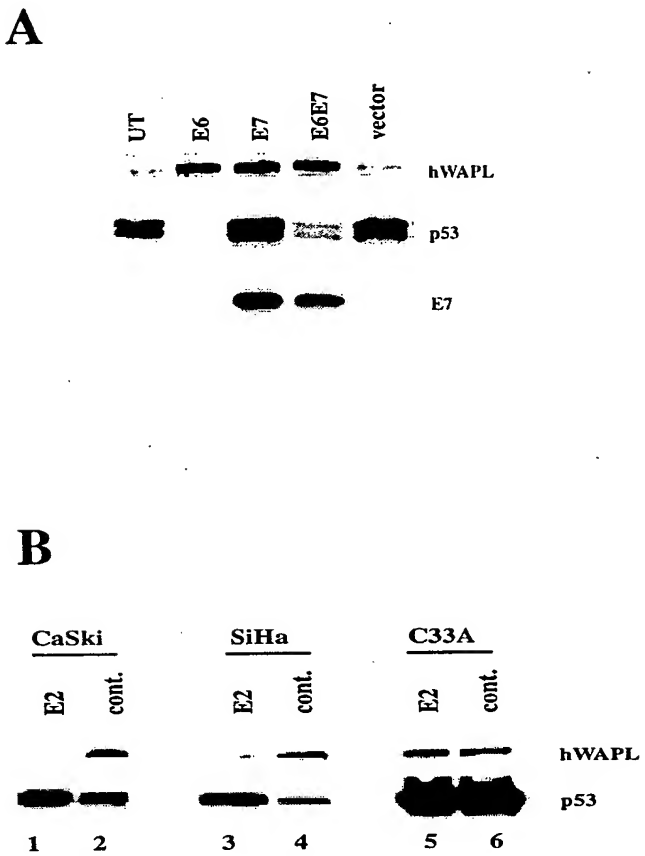
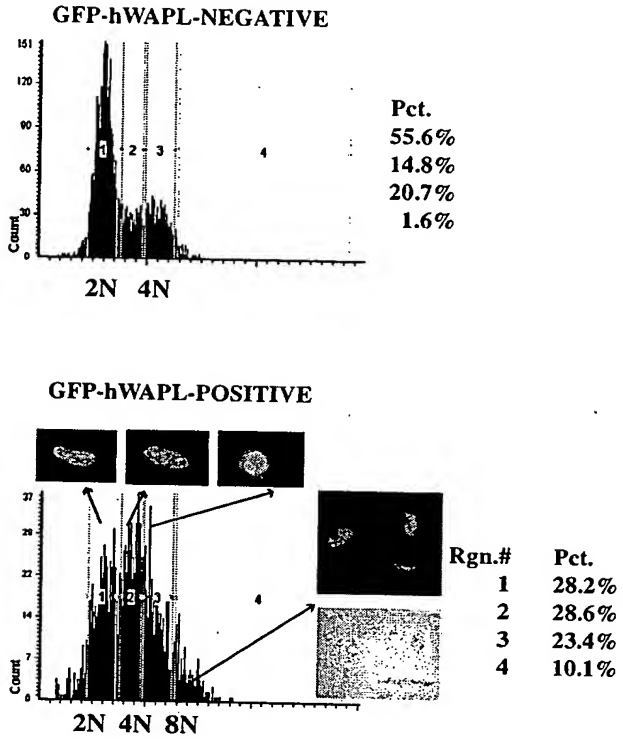

A
UT
E6
E7
E6E7
vector
hWAPL
p53
E7
B
CaSki
SiHa
C33A
E2
cont.
E2
cont.
E2
cont.
hWAPL
p53
1
2
3
4
5
6

Fig.7

A



B

micronuclei	+	-	total
GFP-hWAPL-NEGATIVE	60	940	1000
GFP-hWAPL-POSITIVE	124	876	1000

$p < 0.01$

Fig.8

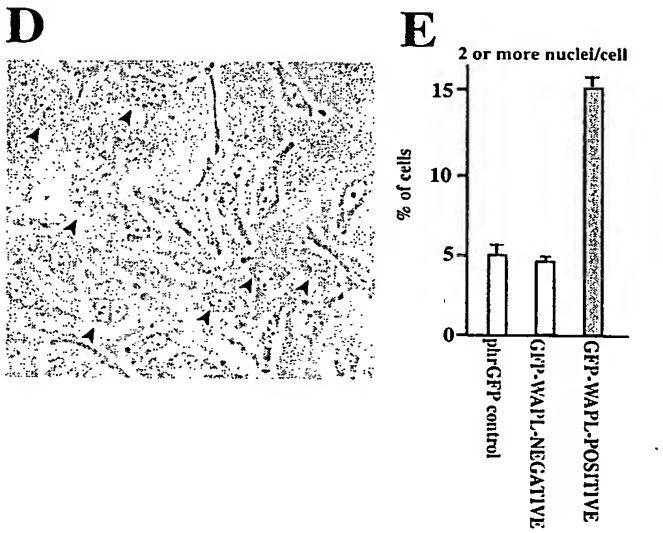
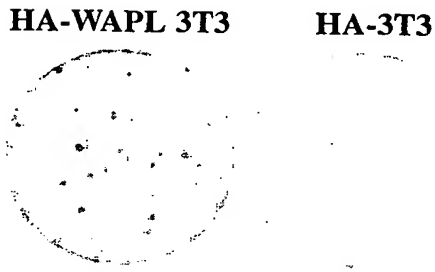
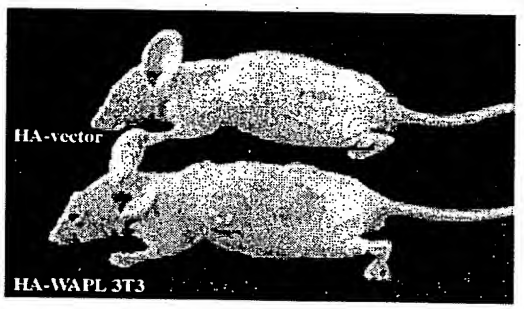

D
E
2 or more nuclei/cell
% of cells
15
10
5
0
plrGFP control
GFP-WAPL-NEGATIVE
GFP-WAPL-POSITIVE

Fig.9

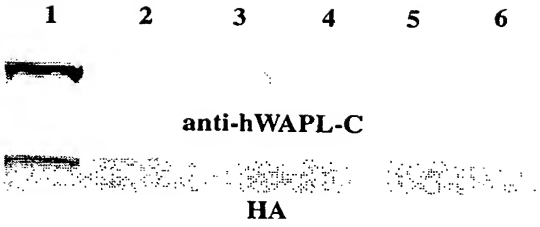
A



B



C



D

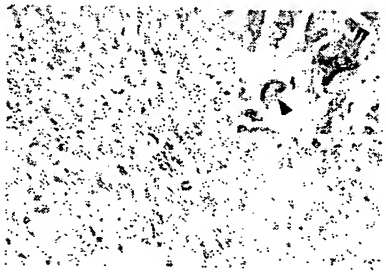
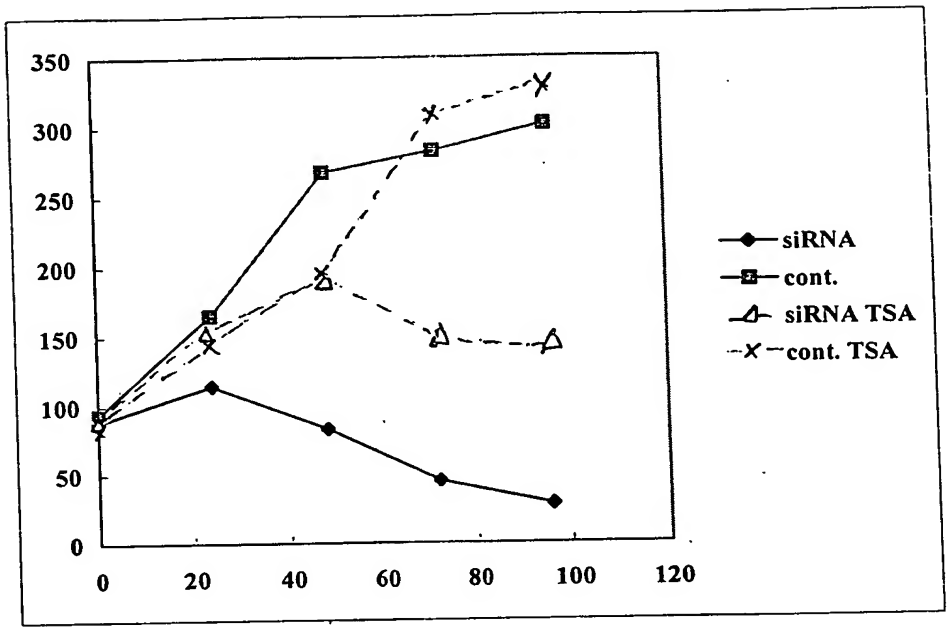


Fig.10


350
300
250
200
150
100
50
0
0
20
40
60
80
100
120
siRNA
cont.
siRNA TSA
cont. TSA